


**County of Loudoun**  
**Office of Transportation Services**  
**MEMORANDUM**

**DATE:** February 23, 2010

**TO:** Ginny Rowen, Project Manager, Department of Planning 

**FROM:** George Phillips, Senior Transportation Planner

**SUBJECT:** ZRTD 2009-0003, Steeplechase Sportsplex

**Location:** East side of Atlantic Boulevard located between Severn Way and Steeplechase Drive in Sterling VA (*Attachment 1*)

**Background**

This Zoning Map Amendment in the Route 28 Tax District (ZRTD) proposes to convert a 13.98-acre site from PD-IP under the 1972 Zoning Ordinance to the Revised 1993 Zoning Ordinance. There is an occupied 79,258-square-foot building (the Dulles Sportsplex) already on the property; the Sportsplex was approved by the Board of Supervisors under SPEX 2002-0029 on March 14, 2003 with conditions of approval (See *Attachment 2*). The Applicant indicates that there are no definitive development plans proposed at this time and that approval of this request will permit the Applicant to utilize a broader range of compatible land uses than is presently afforded under the 1972 Zoning Ordinance.

This review is based on materials received from the Department of Planning on December 18, 2009, including (1) a statement of justification dated November 10, 2009, (2) a concept plan dated October 27, 2009 from Bowman Consulting Group, Ltd., and (3) Traffic Statement for Route 28 ZMAP Applications to the Current Zoning Ordinance which discusses the traffic impacts of different key land uses under the 1972, 1993 and Revised 1993 Zoning Ordinances. This is included in *Attachment 3*.

**Existing, Planned and Programmed Transportation Facilities**

According to the Revised General Plan, the site is located within the Suburban Policy Area (Sterling Community). The major roadway serving the site is described below. OTS' review of existing and planned transportation facilities is based on the 2001 Revised Countywide

Transportation Plan (2001 Revised CTP) and the 2003 Bicycle & Pedestrian Mobility Master Plan (2003 Bike & Ped Plan).

**Atlantic Boulevard (Route 1902)** – the segment between Severn Way (Route 847)/Woodland Road (Route 679) and Steeplechase Drive is a four-lane divided (U4M), controlled access, major collector roadway. The site has direct access to a median break and includes separate left and right turn lanes into the existing entrance. The 2001 Revised CTP calls for Atlantic Boulevard to remain a controlled access, four-lane, divided arterial with a 90-foot right-of-way, a 40-mph design speed, 600-foot desirable median crossover spacing and turn lanes at all intersections. The 2003 Bike & Ped Plan categorizes Atlantic Boulevard (Route 1902) as a “baseline connecting roadway” along which bicycle and pedestrian facilities are envisioned. There are currently no sidewalks or other pedestrian facilities along the site’s Atlantic Boulevard frontage, though a multi-use trail is being built as part of the ongoing hotel construction directly across Atlantic Boulevard from the site.

### **Review of Traffic Statement for Route 28 ZMAP Applications to the current Zoning Ordinance**

The traffic statement included with this application was approved by the Board of Supervisors on May 20, 2008 (See *Attachment 3*). The purpose of this generalized traffic statement is to expedite the processing of “zoning conversion” (ZRTD) applications. The preparation and scoping of a separate traffic study requires additional time and expense prior to the acceptance of rezoning and special exception applications at the initial checklist stage. The use of a “ready-made” generalized traffic statement, which the Applicant includes with the submission, helps to facilitate this process. The traffic statement provides information for major roads and certain intersections in the Route 28 corridor, including comparison of existing and future traffic volumes and levels-of-service (LOS).

The generalized traffic statement indicates that the signalized Atlantic Boulevard/Nokes Boulevard intersection (the nearest intersection included in the generalized traffic statement) operated at LOS B in the A.M. peak hour and LOS C in the P.M. peak hour based on traffic data from the 2006-2008 time frame. The generalized traffic statement also indicates that the Atlantic Boulevard/Nokes Boulevard intersection will operate at LOS C in the A.M. peak hour and LOS D in the P.M. peak hour in 2010. Based on the latest available (2008) VDOT traffic count data, this segment of Atlantic Boulevard carries 10,000 annual average daily vehicle trips which is within acceptable link LOS for a four-lane divided facility.

### **Trip Generation Information**

It is unclear from the application materials as to the specific amount of development being proposed. However, it is understood that the Revised 1993 Zoning Ordinance allows up to 0.4 FAR which would yield a maximum of 243,588 square feet of PD-IP uses on the 13.98-acre site. Based on ITE trip rates for light industrial uses, this would generate 198 A.M. peak hour, 185 P.M. peak hour and 1,718 daily vehicle trips. If developed with the same amount of office uses, which is a by-right option in the PD-IP district, the site would generate 382 A.M. peak hour,

352 P.M. peak hour and 2,648 daily vehicle trips. However, please note that the proposed specific uses are not understood by OTS as they were not specified in the application.

### **Transportation Comments**

1. The specific uses proposed with this application have not been detailed. OTS understands that zoning conversions typically do not involve a specified land use and that the Board of Supervisors wishes to facilitate the conversions by not requiring detailed plans and studies. Therefore, OTS is not making specific observations and recommendations regarding traffic impacts for this proposed conversion.
2. Due to the absence of specific development information, the Applicant's concept development plan cannot be evaluated for specific transportation related improvements. Therefore, it is unclear what site-specific transportation related improvements would be needed.

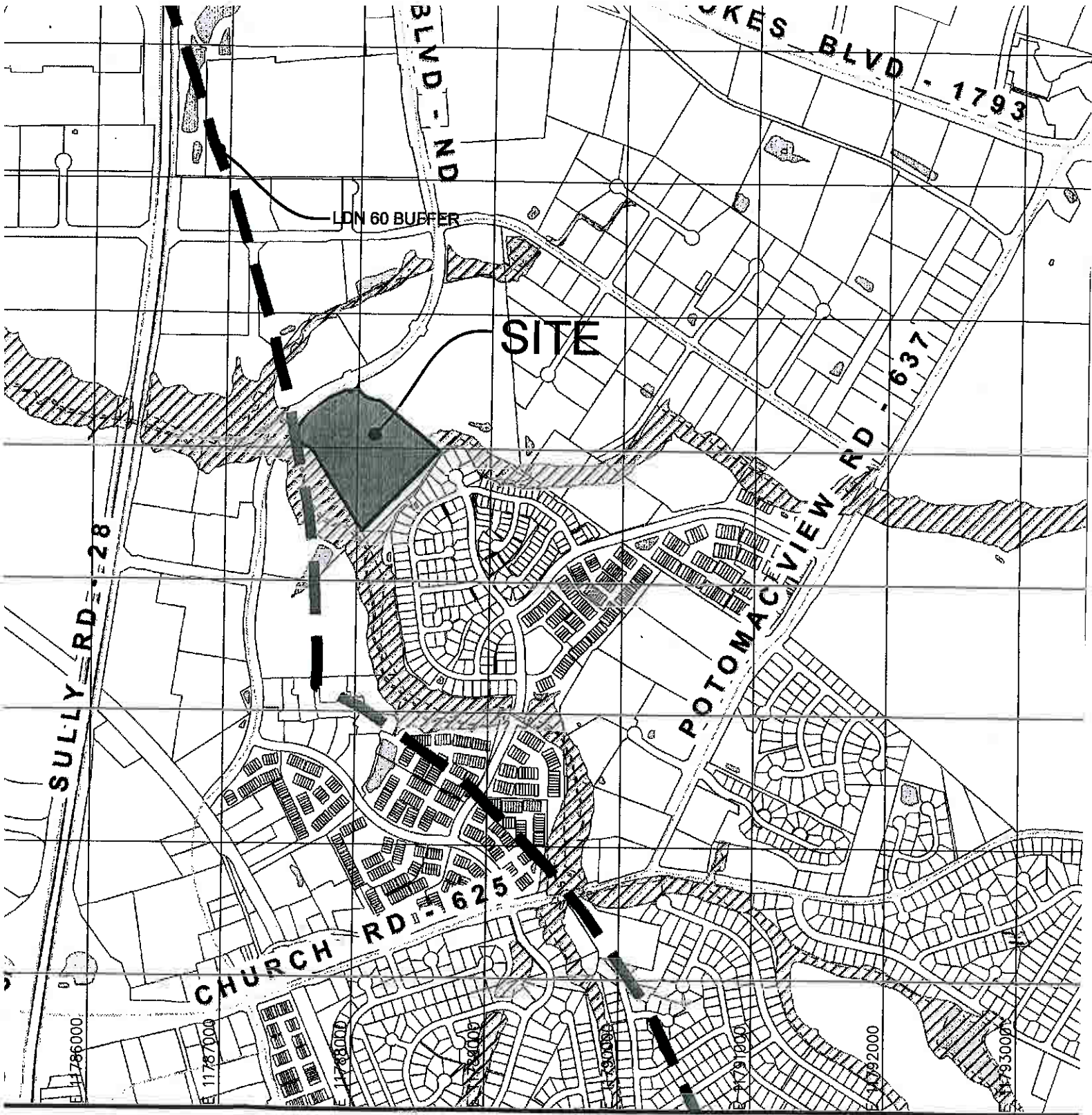
### **Conclusion**

Due to the general nature of this type of proposal, OTS has provided comments for information only and, therefore, has no recommendation on this application.

### **ATTACHMENTS**

1. Vicinity Map
2. SPEX 2002-0029 Conditions of Approval
3. Traffic Statement For Route 28 ZMAP Applications To The Current Zoning Ordinance

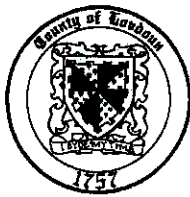
cc: Andrew Beacher, Assistant Director, OTS  
Lou Mosurak, Senior Coordinator, OTS



# VICINITY MAP

SCALE: 1" = 1000'





## Loudoun County, Virginia

[www.loudoun.gov](http://www.loudoun.gov)

### County Administration

1 Harrison Street, S.E., 5th Floor, P.O. Box 7000, Leesburg, VA 20177-7000

Telephone (703) 777-0200 • Fax (703) 777-0325

At a meeting of the Board of Supervisors of Loudoun County, Virginia, held in the County Administration Building, Board of Supervisors' Meeting Room, 1 Harrison St., S.E., Leesburg, Virginia, on Monday, March 17, 2003 at 9:00 a.m.

PRESENT: Scott K. York, Chairman  
Eleanore C. Towe, Vice Chairman  
William Bogard  
James G. Burton  
Eugene A. Delgaudio  
Chuck Harris  
Mark Herring  
J. Drew Hiatt  
Sally Kurtz

IN RE: LAND USE COMMITTEE REPORT/SPEX 2002-0029/STEEPLECHASE  
SPORTSPLEX

Mr. Bogard moved that the Board of Supervisors approve SPEG 2002-0029, Steeplechase Sportsplex, based on the attached findings and subject to the Conditions of Approval dated March 14, 2003.

Seconded by Mr. Burton.

Voting on the Motion: Supervisors Bogard, Burton, Delgaudio, Harris, Herring, Hiatt, Kurtz, Towe, and York-Yes; None – No.

COPY TESTE:

(signed by Denise Reyes)

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DEPUTY CLERK FOR THE LOUDOUN  
COUNTY BOARD OF SUPERVISORS

DCR:03-17-03 bos resolution – 11-steeplechase sportsplex

**FINDINGS**

1. The indoor recreation use realizes the economic development objectives in the Plan for the County and the Route 28 Tax District, and will be beneficial and supportive to the planned Keynote Employment uses in this area.
2. The proposed development will not disrupt the area designated in the Plan for river and stream corridor protection under the conservation design concept. Encroachment is not in any flood plain area.

**CONDITIONS OF APPROVAL**

- 1) The property shall be developed as an indoor recreation facility in substantial conformance with the Special Exception Plat for SPEX 2002-0029, dated October 3, 2002, as revised through March 14, 2003, prepared by christopher consultants, ltd., and subject to these findings and conditions of approval. If any provision of the Plat or Plan conflicts with the requirements of the Zoning Ordinance, the terms of the Zoning Ordinance shall control.
- 2) The Applicant shall provide buffer yards, as per the Landscape Concept Plan, dated March 14, 2003, as prepared by christopher consultants, ltd., that will buffer the Peace Plantation residential community and the adjoining Cabin Branch stream valley and its tributary from the Sportsplex building and the parking area. Reforestation-type plant materials will be installed and will act as riparian buffers for the stream valley associated with the Cabin Branch. Such Reforestation Plan will be reviewed by the County Forester (or designee) during the review of the site plan and adjustments to the site plan may be allowed based on this review.
- 3) The Applicant will implement the Conservation Plan, dated March 14, 2003, as prepared by christopher consultants, ltd., that create a minimum of a 65,000 square foot area from existing tree and vegetation and reforestation to function as a permanent riparian buffer to the adjacent stream valley. Once the construction of the Sportsplex is complete and the building is occupied, this Conservation Area will remain undisturbed, with the exception of utilities and storm sewer outfall requirements, as required by the Facilities Standards Manual (FSM).
- 4) At time regional bus service is available to the Subject Property, the Applicant will install a bus shelter at the intersection with Atlantic Boulevard and the access road for the Subject Property. The Applicant will not be responsible for any road improvements to Atlantic Boulevard to accommodate such a shelter.
- 5) When and if a multiuse trail is designated for this side of Atlantic Boulevard in the Bicycle and Pedestrian Mobility Master Plan, which is under study, the applicant



shall provide a 14-foot trail easement along the Atlantic Boulevard frontage, at an alignment to be determined. The trail will be designed to avoid valuable existing vegetation wherever possible.

- 6) The Applicant will implement the urban design features shown on the SPEX drawings as prepared by Morgan Gick & Associates, and dated January 24, 2003, that include an articulated building exterior, canopy over the entrance, and textured exterior building finish. The Applicant may make minor changes to such features, which do not affect the overall quality or design of such features.
- 7) The parking lot lighting will be designed with cut-off and fully shielded lighting fixtures so that the light will be directed inward and downward toward the interior of the property, away from all adjacent roads and residential areas and the night sky.
  - a. There shall be a maximum average illumination of five-foot candles for lighting on the exterior of the building and for security lighting.
  - b. For all parking lot lighting there shall be a maximum average illumination over the parking lot of two-foot candles.
  - c. Parking lot lighting will be shut off within one half-hour of closing of Sportsplex each night, except for minimal security lighting for the building and the parking lot.
- 8) The Applicant and the operator of the Sportsplex will monitor the building and parking lot for security purposes and will install a surveillance system to monitor activity in the parking lot.
- 9) The applicant is encouraged to provide shared parking at such time as adjacent properties develop.
- 10) The applicant shall prepare and submit to the County a traffic signal warrant study for the intersection of Steeplechase Drive and Atlantic Boulevard within six (6) months of site plan approval.

**Note:** The Applicant has agreed to provide a one-time contribution of \$0.10 per gross square footage of the Sportsplex use to Loudoun County, for distribution in equal amounts to the primary servicing volunteer fire and rescue companies providing fire and/or rescue services to the subject property.

Date of Meeting: May 20, 2008

BOARD OF SUPERVISORS  
ACTION ITEM

#13

**SUBJECT:** Transportation and Land Use Committee Report: Process Improvement Initiative:  
Utilization of Generalized Traffic Statement Approach for Zoning Conversion  
Applications in the Route 28 Corridor.

**ELECTION DISTRICT:** Broad Run, Dulles, Potomac, Sterling

**CRITICAL ACTION DATE:** At the pleasure of the Board of Supervisors

**RECOMMENDATIONS:**

**Staff:** Staff recommends approval of the use of the Traffic Statement approach for zoning conversion applications.

**Committee:** The Transportation and Land Use Committee voted unanimously (4-0) to recommend that the Board approve the Traffic Statement approach for zoning conversions as described in Attachment 1 of this item.

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**BACKGROUND:**

The Route 28 Tax District enjoys protection from any change in the zoning map or text amendment unless the property owner specifically requests the change. It has historically been the Board of Supervisors policy to encourage the Route 28 property owners to become subject to the most recent zoning map and text changes. With the adoption of the 1993 Loudoun County Zoning Ordinance, a "zoning conversion" process was initiated. Consequently, a zoning conversion application represents a request by a landowner to remap their property to the current version of the applicable zoning district. The common way of referring to this is to convert from the zoning ordinance regulations that apply to the property to another more recent version. This is a legislative process that ultimately receives Planning Commission recommendation and Board of Supervisors action. Landowners pursuing the options of the expanded range of uses permitted in the Revised 1993 Zoning Ordinance must submit a Zoning Map Amendment application and are required to submit a traffic study as a checklist requirement. Recognizing the importance of economic development opportunities and the facilitation of employment and other non-residential revenue generating activities, staff is recommending the use of a generalized traffic statement for zoning conversion applications.

In many instances, applicants are pursuing time sensitive approvals in order to be open for business by certain dates. The preparation and scoping of a separate traffic study requires additional time and expense prior to the acceptance of the application at the initial checklist stage. In working through the details and implications of several individual conversion cases, an alternative approach to develop and use a broad traffic statement was proposed by staff. Staff has worked with representatives of the local chapter of the National Association of Industrial and Office Properties (NAIOP) to discuss the matter in detail and has refined the traffic statement approach to the effort described in Attachment 1 to reflect the purpose of the application.



This method provides information for major roads and intersections in the Route 28 corridor including road descriptions, levels-of-service at major intersections and daily traffic volumes on the major road links in the Route 28 corridor. The traffic statement includes a comparison of existing and future (2010) traffic volumes and existing and future (2010) levels of service. It is anticipated that this traffic statement would, in most cases, eliminate the need for an individual traffic study to be submitted for each individual zoning conversion application. If there are specific transportation impacts of a particular conversion resulting in an outstanding issue, those will be brought to the Board's attention through the staff review process. Recommendations for resolution can be developed in response to those issues.

Staff appreciates the cooperation of the local NAIOP chapter and is grateful for the assistance provided by Mr. Chris Tacinelli of Gorove/Slade Associates, Inc., who worked with staff from the Office of Transportation Services (OTS) to develop the specifics of the overall traffic statement approach.

In addition to this specific issue regarding traffic studies, the local NAIOP chapter is also interested in continued discussion and recommendations on additional process improvements for zoning conversion applications. These may include revisions to the checklist requirements, a more streamlined referral process, and the use of a dual advertising method approach for the Planning Commission and Board public hearings, as examples of several of the topics raised for additional discussion. Staff will continue to work with the local chapter on these issues and can bring forward additional items for the Board's future review.

At the April 28 Committee meeting, staff briefly discussed the development of the attached Draft Traffic Statement Approach which is intended to provide a more streamlined process for individual zoning conversion applications in the Route 28 corridor. The Committee voted unanimously (4-0) to forward this item to the Board of Supervisors with a recommendation that the Traffic Statement approach described in Attachment 1 be used for zoning map amendments (ZMAP) for the purpose of facilitating Route 28 property owners subjecting themselves to the most recent zoning text.

#### ISSUES:

1. Does the Board of Supervisors wish to streamline the process for zoning conversion applications by recommending that the general traffic statement approach be used at this time?
2. These mapping applications (ZMAP) or so-called Zoning conversion applications will allow a property to be subject to amendments contained in the Revised 1993 Loudoun County Zoning Ordinance. This includes those additional uses included in the 2007 amendments such as office by-right subject to performance standards in the PD-IP district, and increased FAR in the PD-OP district. These Zoning Ordinance amendments were implemented to address and remove perceived barriers to commercial development to update permitted uses and to encourage economic development.

**FISCAL IMPACT:**

While the ultimate development of non-residential uses typically result in a revenue positive status, there is no anticipated fiscal impact resulting from the use of a generalized traffic statement for zoning conversions.

**DRAFT MOTION:**

I move that the Board of Supervisors accept the recommendation of the Transportation and Land Use Committee that the Traffic Statement approach described in Attachment 1 be used for zoning map amendments (ZMAP) for the purpose of facilitating Route 28 property owners subjecting themselves to the most recent zoning text. I further move that staff be directed to update the Traffic Statement on a regular basis as new information becomes available.

Or,

I move an alternate motion.

**ATTACHMENTS:**

1. Traffic Statement for Zoning Conversions

**STAFF CONTACTS:**

George Phillips, Office of Transportation Services  
Charles Yudd, County Administration



Loudoun County, Virginia

[www.loudoun.gov](http://www.loudoun.gov)

Office of the County Administrator

1 Harrison Street, S.E., 5th Floor, P.O. Box 7000, Leesburg, VA 20177-7000

Telephone (703) 777-0200 • Fax (703) 777-0325

At a business meeting of the Board of Supervisors of Loudoun County, Virginia, held in the County Government Center, Board of Supervisors' Meeting Room, 1 Harrison St., S.E., Leesburg, Virginia, on Tuesday, May 20, 2008 at 9:00 a.m.

IN RE: TRANSPORTATION/LAND USE COMMITTEE REPORT/PROCESS  
IMPROVEMENT INITIATIVE/GENERALIZED TRAFFIC STATEMENT  
APPROACH FOR CONVERSION APPLICATIONS IN THE ROUTE 28  
CORRIDOR

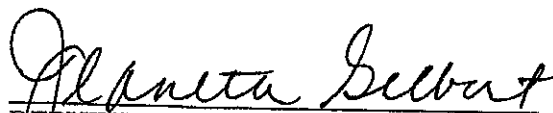
Mrs. Waters moved that the Board of Supervisors accept the recommendation of the Transportation and Land Use Committee that the Traffic Statements approach described in Attachment 1 be used for zoning map amendments (ZMAP) for the purpose of facilitating Route 28 property owners subjecting themselves to the most recent zoning text.

Mrs. Waters further moved that staff be directed to update the Traffic Statement on a regular basis as new information becomes available.

Seconded by Ms. McGimsey.

Voting on the Motion: Supervisors Buckley, Burk, Burton, Delgaudio, Kurtz, McGimsey, Miller, Waters and York - Yes; None - No.

A COPY TESTE:

  
DEPUTY CLERK FOR THE LOUDOUN  
COUNTY BOARD OF SUPERVISORS

## TRAFFIC STATEMENT FOR ROUTE 28 ZMAP APPLICATIONS TO THE CURRENT ZONING ORDINANCE (AKA ZONING CONVERSIONS)

### INTRODUCTION

The purpose of this report is to provide traffic information which will aid the Board of Supervisors in understanding the traffic situation in the Route 28 corridor as part of their review of proposed zoning conversions. This report provides information for major roads and intersections in the Route 28 corridor including road descriptions, levels of service at major intersections and daily traffic volumes on the major road links in the Route 28 corridor. This includes an existing condition and traffic counts and intersection levels of service projected to the year 2010.

In order to understand the traffic impacts of different land uses, a comparison of the trips generated between several key uses allowed under the 1972 and 1993 Loudoun County Zoning Ordinances is also provided. It is envisioned that this report would, in most cases, negate the need for individual traffic studies to be submitted for individual proposed zoning conversions, thus providing a more streamlined process.

### BACKGROUND INFORMATION

The PDIP district is established for light and medium industrial uses, office uses, and necessary supporting accessory uses and facilities, designed with a park-like atmosphere to complement surrounding land uses by means of appropriate siting of buildings and service areas, attractive architecture, and effective landscape buffering.

PDIP districts are generally located in areas served by one or more major arterial or collector roads, by public water and sewer, and consistent with locations identified in the Comprehensive Plan for industrial use. When mapped, the district is no less than twenty (20) acres in size. Incremental and contiguous additions of a minimum of one (1) acre to an existing PDIP zoning district is allowed. Incremental additions demonstrate their relationship and compatibility with the previously approved district to which it is being added.

The PDOP district (Planned Development Office Park) is established primarily for administrative, business and professional offices and necessary supporting accessory uses and facilities, designed with a park like atmosphere and environmentally sensitive design to accommodate and complement existing natural features including extensive landscaping, low ground coverage by buildings, buildings of moderate height, and careful attention to such aesthetic considerations as location and size of signs, lighting, parking and service areas and the like.

The PDOP district shall be no less than five (5) acres and shall be located:

- 1) On arterial or collector roads.

- 2) In areas served by public water and sewer facilities.
- 3) In areas compatible with other commercial development.
- 4) As envisioned in the Comprehensive Plan.

Incremental and contiguous additions of a minimum of one (1) acre to an existing PDOP zoning district shall be allowed. Incremental additions must demonstrate their relationship and compatibility with the previously approved district to which it is being added.

## ROADWAY NETWORK

A description of the existing roadway network within the vicinity of the PDIP district is presented below:

- Route 7 (Harry Byrd Highway – from Cascade Parkway west to Algonkian Parkway) is a six-lane, controlled access, median divided, principal arterial with grade separated interchange at Cascade Parkway. Individual site access occurs along this section. The current posted speed limit on this road is 55 mph within the vicinity of the project site.
- Route 7 (Harry Byrd Highway – from Algonkian Parkway west to Ashburn Village Boulevard) is a six-lane, controlled access, median divided, principal arterial with grade separated interchanges at Algonkian Parkway/Atlantic Boulevard and Route 28. Left and right turn lanes are provided at all intersections. The current posted speed limit on this road is 55 mph within the vicinity of the project site.
- Route 28 (Sully Road – from Route 625 north to Route 7) is a six-lane, controlled access, median divided, principal arterial with grade-separated interchanges at Route 625 and Route 7. Left and right turn lanes are provided at all intersections. The current posted speed limit on this road is 55 mph within the vicinity of the project site.
- Route 625 (Church Road – from Route 637 west to Ruritan Circle (west)/Davis Drive) is a two to four-lane, local access, undivided, major collector with current posted speed limit of 35 mph within the vicinity of the project site.
- Route 625 (Church Road – from Ruritan Circle (west)/Atlantic Boulevard west to Route 28) is a four-lane, limited access, median divided, major collector with grade-separated interchange at Route 28. The road alignment was shifted north of the existing alignment to provide desirable interchange design. Left and right turn lanes are provided at its intersection with Atlantic Boulevard. The current posted speed limit on this road is 35 mph within the vicinity of the project site.
- Route 625 (Waxpool Road – from Route 28 west to Pacific Boulevard) is a six-lane, limited access, median divided, major collector with grade-separated interchange at Route 28. The road alignment was shifted north of the existing alignment to provide desirable interchange design. Left and right turn lanes are provided at its intersection with Pacific Boulevard. The current posted speed limit on this road is 45 mph within the vicinity of the project site.

- Route 625/Route 640 (Waxpool Road/Farmwell Road – from Pacific Boulevard west to Route 641) is a four to sixlane, controlled access, median divided, major collector with left and right turn lanes at all intersections. The current posted speed limit on this road is 45 mph within the vicinity of the project site.
- Route 28 East Collector Road (Atlantic Boulevard – from Route 625 north to Route 7) is a four-lane, controlled access, median divided, major collector with grade-separated interchange at Route 7 with Algonkian Parkway. Left and right turn lanes are required at all intersections. The current posted speed limit on this road is 45 mph within the vicinity of the project site.
- Route 28 East Collector Road (Davis Drive – south of Route 625) is a four-lane, local access, undivided, major collector with left and right turn lanes at major intersections. The current posted speed limit on this road is 35 mph within the vicinity of the project site.
- Route 28 West Collector Road (Pacific Boulevard – from Route 625 north to just south of W&OD trail crossing) is a four-lane, controlled access, median divided, major collector with left and right turn lanes at all intersections. The current posted speed limit on this road is 35 mph within the vicinity of the project site.
- Route 28 West Collector Road (Pacific Boulevard – from West Severn Way north approximately 700 feet) is a four-lane, local access, undivided, minor collector with left and right turn lanes at major intersections.
- Route 607 (Loudoun County Parkway – from Smith Switch Road south to Redskins Drive) is a two-lane, local access, secondary road with 7foot travel lanes. The current posted speed limit on this road is 25 mph within the vicinity of the project site. It should be noted that Route 607 was closed to vehicular traffic from Route 7 south to Smith Switch Road due to construction work along this section.
- Route 607 (Loudoun County Parkway – from Redskins Drive south to Route 625) is a four-lane, controlled access, median divided, minor arterial with left and right turn lanes at major intersections. The current posted speed limit on this road is 45 mph within the vicinity of the project site.
- Route 607 (Loudoun County Parkway – south of Route 625) is a six-lane, controlled access, median divided, minor arterial with left and right turn lanes at all intersections. The current posted speed limit on this road is 45 mph within the vicinity of the project site.
- Route 637 (Potomac View Road – from Route 625 north to Cascade Parkway at Nokes Boulevard) is a four-lane, controlled access, median divided, major collector with single left and right turn lanes at all intersections. The current posted speed limit on this road is 45 mph within the vicinity of the project site.
- Route 638 Relocated (Nokes Boulevard – from Route 28 east to Route 637/Cascade Parkway at Potomac View Road) is a four-lane, controlled access, median divided, major collector with left and right turn lanes at major intersections. The current posted speed limit on this road is 45 mph within the vicinity of the project site.



- Route 636 (Shaw Road – from Route 625 to Route 606) is a two-lane, local access, undivided, minor collector with left and right turn lanes at major intersections.
- Route 846 (Sterling Boulevard – from Route 28 to Route 7) is a four-lane, local access, median divided, major collector with left and right turn lanes at all intersections.

Figure 1 shows the existing and planned (near future) roadway network surrounding the PD-IP district.

#### TRAFFIC VOLUMES AND LOS (EXISTING AND PROJECTED)

Traffic volume data was summarized for the existing conditions with the base year of 2006. The Virginia Department of Transportation (VDOT) provides count data on major roadway links for both hourly and daily 2way volume estimates. The road link traffic volumes shown on Figure 2 are based on the latest available (2006) VDOT traffic counts data.

A number of traffic studies have been prepared for projects in this area and have been submitted and reviewed by the County and VDOT. These studies have included projections for future years based on approved developments and historical growth in traffic. These studies have been referenced to develop future year 2010 traffic volumes for the primary roadway links within the study area. Those 2010 daily and hourly two way link volumes are shown on the attached Figure 2.

The traffic studies identified previously have also included information for both existing and future year levels of service. Levels of Service (ranging from A to F) represent an operational assessment of the intersections ability to accommodate the traffic demand. Level of Service A identifies an intersection has capacity in excess of demand. Level of Service E represents that an intersection has reached its capacity and cannot process any increase in demand. Level of Service F represents an intersection where demand is in excess of capacity. Level of Service data is provided on the attached Figure 3 for both the existing and 2010 conditions.

**Figure 1: Existing Roadway Network**

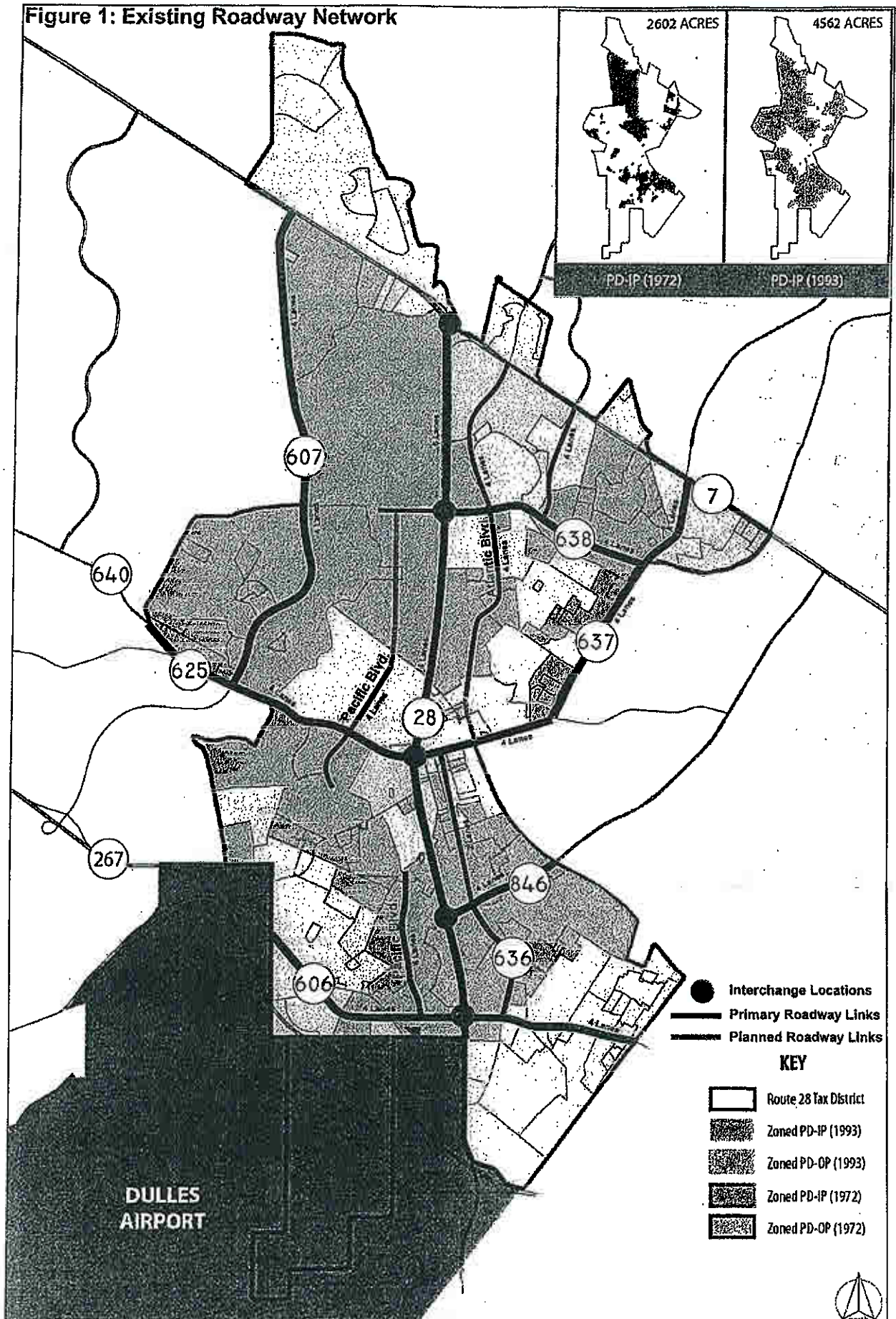
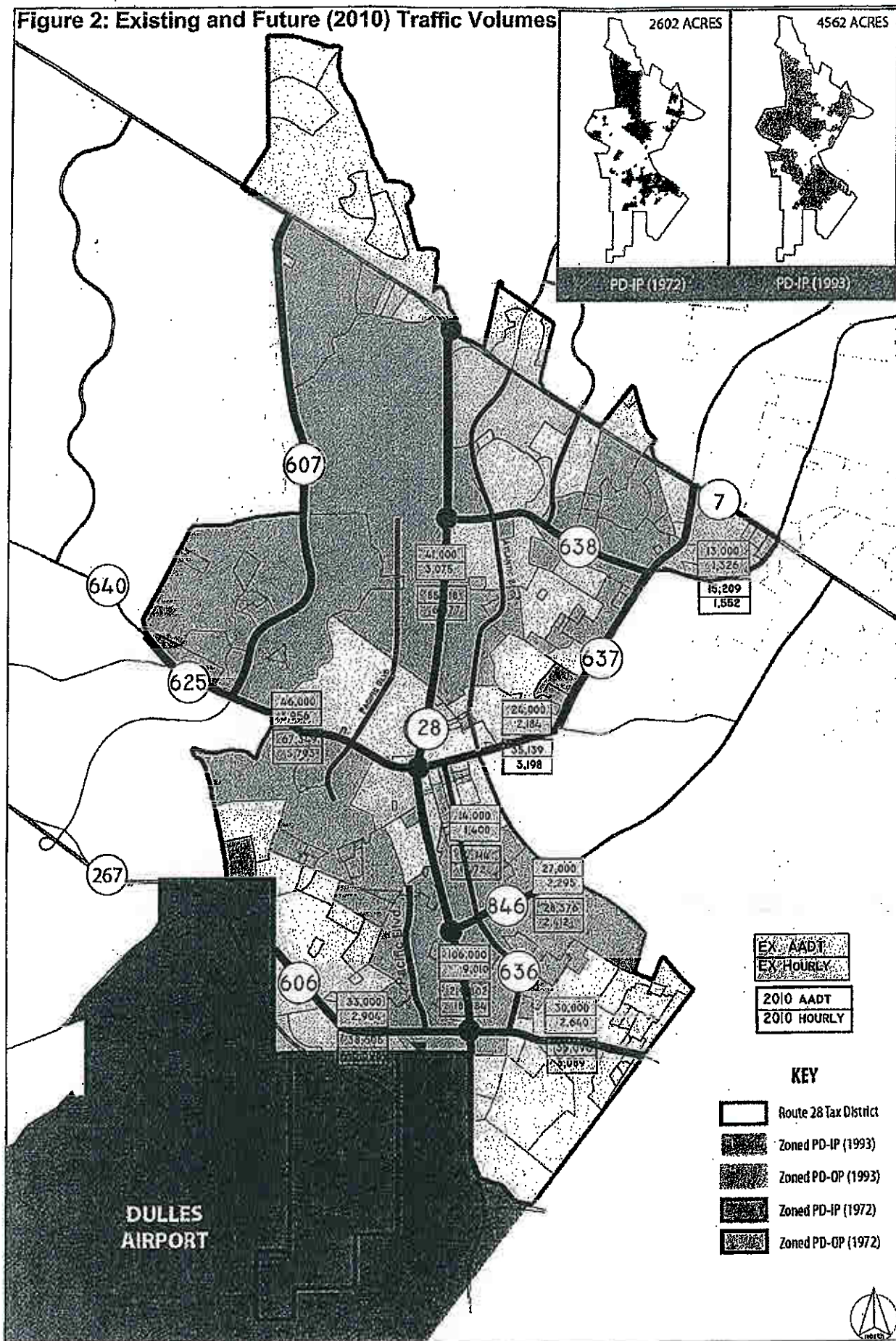


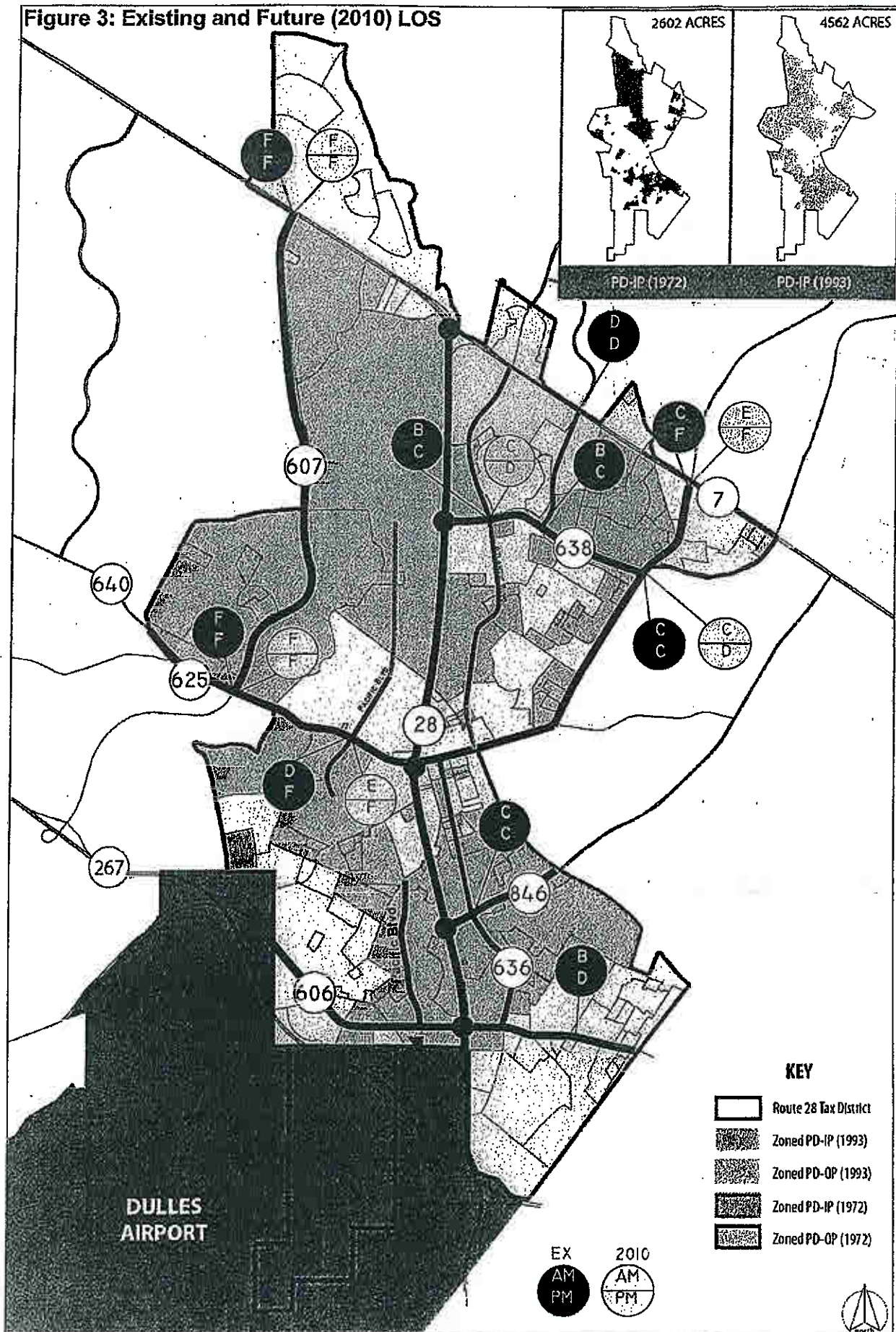


Figure 2: Existing and Future (2010) Traffic Volumes





**Figure 3: Existing and Future (2010) LOS**



### TRIP GENERATION COMPARISON – PD-IP

A comparison of the trips generated by the highest intensity permitted uses for PD-IP district based on the 1972 Zoning Ordinance, 1993 Zoning Ordinance and 1993 Revised Zoning Ordinance was conducted. The results of the comparison are shown in the following table. For the purposes of this analysis, an average parcel size of 20 acres was assumed along with an FAR of 0.4:

**Table 1: Trip Generation Comparison for Peak Hour Trips**

1972 PD-IP (A)	R1993 PD-IP (B)	1993 PD-IP (C)	(B) - (A)	(C) - (B)
Research and Development	Office	Post Office	143*	291**
	Office	Walk-in Bank		293^
	Office	Health and Fitness Center		92^^

\* 20 Acre Parcel – 0.4 FAR

\*\* 31,000 SF (Avg. Size for Post Office)

^ 5,000 SF (Avg. Size for Walk-in Bank)

^^ 36,000 SF (Avg. Size for Health and Fitness Center)

### TRAFFIC IMPACTS – PD-IP

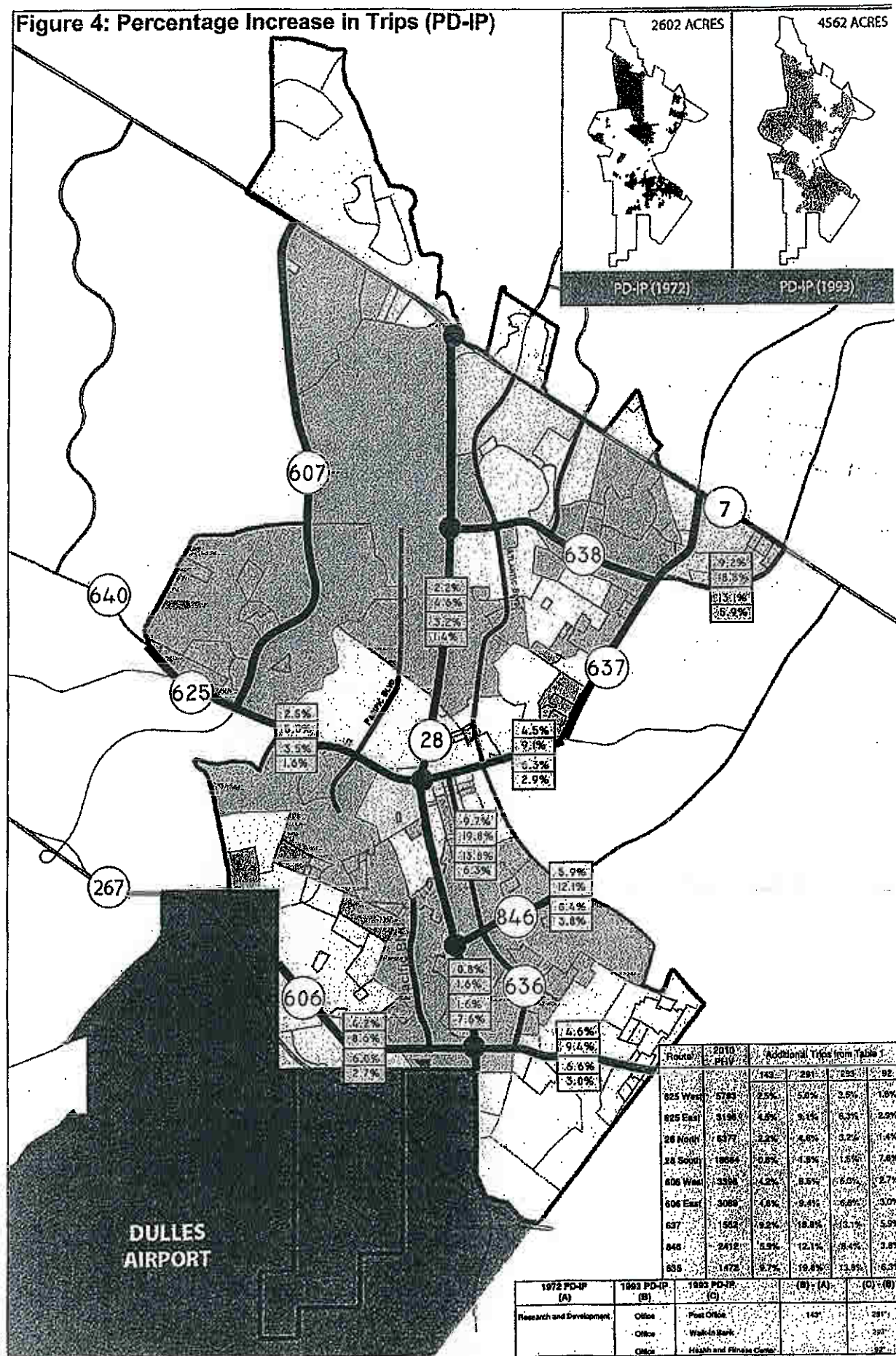
The additional trips generated as shown in Table 1 were applied to the projected traffic volumes for 2010 as shown in Figure 2. The percentage increase in trips on the selected roadway network is shown in Table 2 below and graphically in Figure 4.

**Table 2: Impacts of Additional Trips**

Route	2010 PHV	Additional Trips from Table 1			
		143	291	203	92
625 West	5793	2.5%	5.0%	3.5%	1.6%
625 East	3198	4.5%	9.1%	6.3%	2.9%
28 North	6377	2.2%	4.6%	3.2%	1.4%
28 South	18,684	0.8%	1.6%	1.6%	7.6%
606 West	3398	4.2%	8.6%	6.0%	2.7%
606 East	3089	4.6%	9.4%	6.6%	3.0%
637	1552	9.2%	18.8%	13.1%	5.9%
846	2412	5.9%	12.1%	8.4%	3.8%
636	1472	9.7%	19.8%	13.8%	6.3%



Figure 4: Percentage Increase in Trips (PD-IP)





### TRIP GENERATION COMPARISON – PD-OP

A comparison of the trips generated by the permitted uses for PD-OP based on the 1973 Zoning Ordinance, 1972 Zoning Ordinance and 1993 Revised Zoning Ordinance was conducted. The results of the comparison are shown in the following table:

**Table 3: Trip Generation Comparison for Peak Hour Trips**

1972 & 1993 PD-OP (A)	R1993 PD-OP (B)	(B) - (A)
Office	Drive-In Bank	177^
	Health & Fitness Center	92^^
	Medical & Dental Office	777*
1972 & 1993 PD-OP (A)	R1993 PD-OP (B)	(B) - (A)
Office (0.4 FAR)	Office (0.6 FAR)	271*

\* 20 Acre Parcel – 0.4 FAR

^ 4,000 SF (Avg. Size for Drive-in Bank)

^^ 36,000 SF (Avg. Size for Health and Fitness Center)

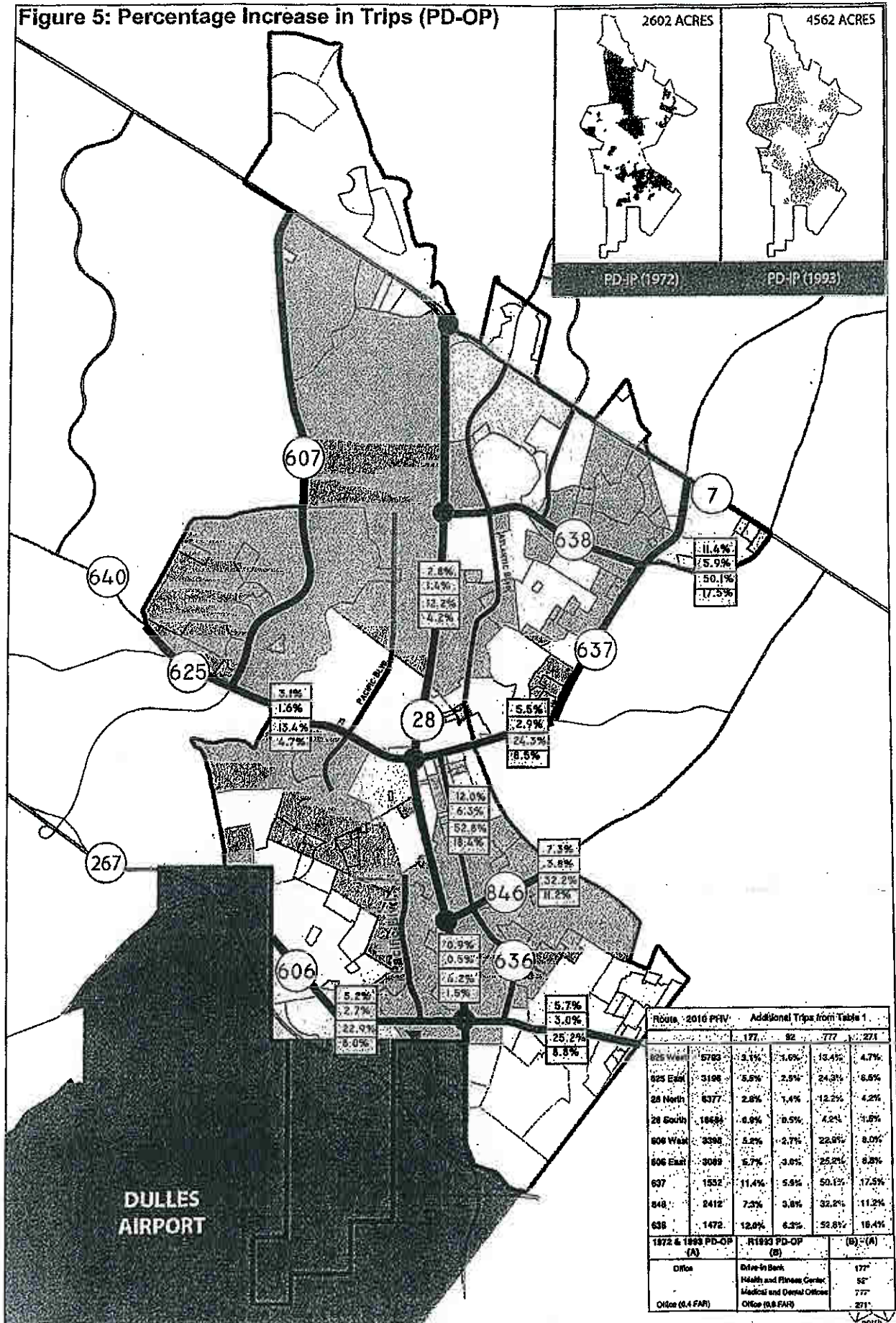
### TRAFFIC IMPACTS – PD-OP

The additional trips generated as shown in Table 1 were applied to the projected traffic volumes for 2010 as shown in Figure 2. The percentage increase in trips on the selected roadway network is shown in Table 4 below and graphically in Figure 5.

**Table 4: Impacts of Additional Trips**

Route	2010 PHV	Additional Trips from Table 3			
		177	92	777	271
625 West	5793	3.1%	1.6%	13.4%	4.7%
625 East	3198	5.5%	2.9%	24.3%	8.5%
28 North	6377	2.8%	1.4%	12.2%	4.2%
28 South	18,684	0.9%	0.5%	4.2%	1.5%
606 West	3398	5.2%	2.7%	22.9%	8.0%
606 East	3089	5.7%	3.0%	25.2%	8.8%
637	1552	11.4%	5.9%	50.1%	17.5%
846	2412	7.3%	3.8%	32.2%	11.2%
636	1472	12.0%	6.3%	52.8%	18.4%

Figure 5: Percentage Increase in Trips (PD-OP)



## CONCLUSIONS

This report provides a summary of traffic information for major road facilities in the vicinity of the PDIP district adjacent to the Route 28 corridor. The report includes daily traffic on major road links and LOS information at major intersections. This includes an existing condition and traffic data projected to the year 2010. With this information, the traffic impacts of proposed land use changes due to zoning conversions from the 1972 to the 1993 Loudoun County Zoning Ordinances will aid the Board of Supervisors in their decision making process.

The road link traffic volumes are based on the latest available (2006) VDOT traffic count data. The levels of service information was obtained from the latest available traffic studies completed for proposed developments in the vicinity.

Based on the report information, several conclusions are in order:

The segments of Route 28 south of Route 625, Route 625 west of Route 28, Route 7 in the vicinity of Potomac View Road and Potomac View Road (2 lanes) between Route 7 and Route 637 (Cascades Parkway) are carrying large traffic volumes in the study area. In addition, the existing and projected levels of service at the Route 625/Pacific Boulevard, the Route 625/Loudoun County Parkway and Route 7/Route 637 intersections are shown to fail at LOS F. Therefore, the proposed site traffic which would access these road segments should be understood and reviewed carefully.

The segments of Route 28 between Route 7 and Route 625, Nokes Boulevard between Route 28 and Route 637, Shaw Road between Route 606 and Route 625, and Sterling Boulevard between Route 28 and the W & OD Trail boundary appear to have more capacity.

The trip generation information included in the report will be helpful in understanding the relative traffic impacts of key land uses included in the 1972 and 1993 Loudoun County Zoning Ordinance.